KELLEY DRYE & WARREN LLP
A LIMITED LIABILITY PARTNERSHIP
WASHINGTON HARBOUR, SUITE 400
3050 K STREET, NW
WASHINGTON, D.C. 20007-5108
(202) 342-8400

NEW YORK, NY
CHICAGO, IL
STAMFORD, CT
PARSIPPANY, NJ
BRUSSELS, BELGIUM
AFFILIATE OFFICES
MUMBAI, INDIA

FACSIMILE
(202) 342-8451
www.kelleydrye.com

JOSEPH J. GREEN
DIRECT LINE: (202) 342-8849
EMAIL: jgreen@kelleydrye.com

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VIA ELECTRONIC MAIL

Chad Stobbe, Environmental Specialist Senior
Land Quality Bureau
Iowa Department of Natural Resources
502 East 9th Street
Wallace State Office Building
Des Moines, Iowa 50319-0034
Chad.Stobbe@dnr.iowa.gov

Re: Gerdau Ameristeel and SSAB Comments on Draft Proposed Amendments to "Beneficial Use" Regulations (IAC 567 Chapter 108)

Dear Mr. Stobbe:

On behalf of Gerdau Ameristeel (Gerdau) and SSAB (formerly IPSCO, Inc.), we appreciate the opportunity as stakeholders to provide input on the draft proposed amendments to the Iowa "Beneficial Use" regulations (IAC 567 Chapter 108). Gerdau and SSAB operate electric arc furnace (EAF) steelmaking operations in Wilton and Muscatine, respectively. EAF slag has been produced and sold in Iowa since the founding of the Wilton facility in 1975 and the Muscatine facility in 1997. At each facility, slag processing companies[1] conduct on-site slag processing activities and are generally responsible for selling and marketing the slag products. The draft proposed Beneficial Use regulations include provisions that will affect the use and market for EAF slag in Iowa.

As you will recall, for approximately two years during 2004 to 2006, Gerdau, SSAB/IPSCO, and the Department of Natural Resources (IDNR) engaged in substantive discussions regarding the status and use of EAF slag under the Beneficial Use regulations. Those negotiations culminated in the November 2006 issuance of a memorandum from IDNR to

[1] Multi-Serv is the slag processor in Muscatine and, as of August 1, 2008, Phoenix Services, LLC in Wilton. Tube City IMS processed slag at Wilton through July 2008 and was involved in our discussions with IDNR during 2004-2006.

county road Iowa Department of Transportation officials identifying 17 approved state-wide uses of EAF slag ("the November 2006 Memorandum"). The Memorandum noted that these "universal" approvals would be incorporated into the next update of the beneficial use regulations. We are pleased that, with the exception of a few significant items, the draft proposed amendments reflect the agreement reached in 2006.

Following are comments on the draft proposed amendments related to EAF slag. In particular, we are concerned by certain changes to the list of universally approved EAF slag uses as agreed in 2006. Specifically, the addition of a "free of fines" condition for use of "surfacing granular material" is unreasonable, impractical, and unnecessary to protect human health, safety and the environment. In addition, we request clarification of several provisions, including those related to the approval for "general structural material" and the status general fill, soil amendment, and daily landfill cover applications.

As an initial matter, we reiterate, as we did during our 2004-2006 discussions, that EAF steel slag is not a "solid byproduct" as that term is understood either in industry practice or as defined in the Iowa Administrative Code. The Iowa regulatory definition presupposes that a "solid by-product" is a secondary material that, if not "beneficially reused," would "otherwise be disposed of as solid waste." (IAC 567 Chapter 108.3) This is clearly not the case with EAF steel slag, which, as made clear in our correspondence during 2004-2006,[2] has a long-established history of being marketed and sold as a product. EAF slag has been produced and sold in Iowa for a variety of uses since the Gerdau-Wilton facility started operations in 1975. The widespread sale of this material as a product pre-dates the establishment of the "beneficial use" provisions of the Iowa Administrative Code. At no time during this period has EAF slag been managed as a waste or discarded in Iowa; rather, all EAF slag produced by the Gerdau and SSAB/IPSCO facilities has always been sold as a product in Iowa or neighboring states.

For these reasons, we have a strong legal basis for opposing application of the "beneficial use" regulations to EAF steelmaking slag. However, to expedite resolution of the matter in 2006 and accommodate the interests of IDNR, we agreed to "universal approval" of the 17 historic uses of EAF slag identified in the November 2006 Memorandum. We continue to accept inclusion of the specified EAF slag uses under the universal approval provisions of the beneficial use regulations, subject to the following comments.

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[2] *See, e.g.,* November 7, 2005 letter to Director Jeffrey Vonk describing the market and commodity status of EAF steelmaking slag. An updated U.S. Geological Survey commodity report for EAF slag (USGS, U.S. Department of the Interior, *Mineral Commodity Summaries 2008* at 90-91) is available at:

http://minerals.usgs.gov/minerals/pubs/commodity/iron_&_steel_slag/mcs-2008-fesla.pdf

I. Use Of Surfacing Granular Material Must Not Be Conditioned On Being "Free of Fines"

The draft proposed amendments would condition the universal approval of EAF slag as "surfacing granular material" for unpaved roads, driveways, walkways, trails, *etc.*, on the slag being "free of fines." (Draft Proposed IAC 567 Chapter 108.4(17)(h)) This conditional "free of fines" language did not appear in the entry for "surfacing granular material" in the November 2006 Memorandum and inconsistent with the prior agreement reached among Gerdau/SSAB/IPSCO, and the Department. In reaching that agreement, we demonstrated conclusively that EAF slag poses no meaningful risk to human health, safety or the environment in any of the approved applications. That conclusion was supported by the most comprehensive risk assessment of steelmaking slag ever performed, which included a review of potential exposures and risks to construction workers and others that may be exposed to inhalable slag particulates. Even under worst case exposure conditions, no significant risks to human health or the environment were associated with the potential inhalation of slag particulates. Accordingly, the addition of the "free of fines" condition is unnecessary to protect human health, safety, and the environment.

Moreover, the requirement is impractical and would severely restrict the use of EAF slag for roadway applications. A relatively small percentage of fines (less than 5-10 percent) are a necessary engineering component of unpaved roadway construction, as the binding properties of slag fines enable the compaction and structural soundness of the surface. Absent fines, the aggregate that comprises the roadway would remain "fluid" (like marbles) such that tires would sink into the material, resulting in a loss of traction and support. Further, the safety of such roadways would be compromised by the jagged edges of the aggregate (which would not be smoothed over by fines) and the increased potential for pieces to be kicked up by passing vehicles. For these reasons, many state DOT and other construction specifications require a certain (relatively small) percentage of fines in aggregate used for roadway bases.

Finally, compliance with the restrictive "free of fines" requirement would be virtually impossible. While slag material that has relatively minimal amounts of fines can be produced, it would not be possible to certify that the product is "free" of fines. This is particularly true given that fines can be generated by the natural wearing of larger aggregate material.

We also should note that to the extent inclusion of the "free of fines" language is motivated by concerns related to dust generation, the problem of dust generation by traffic on roadways is common to slag and other natural aggregates. There is nothing unique about slag that causes dust to be generated in greater amounts than other aggregate material. Dust generation from unpaved roadways is related to dry weather patterns and a lack of precipitation, as well as vehicle weight and speed. As discussed above, there is no environmental, human

health, or safety reason to condition the use of slag on the lack of fine particulates that may become airborne when the weather is dry or there is increased vehicle traffic on an unpaved roadway. Such concerns are not rightfully addressed under IDNR "beneficial use" regulations. Rather, it is an issue of engineering and roadway management.

For these reasons, the "free of fines" language must be removed from the universal approval for "surfacing granular material."

II. Use Of EAF Slag As Granular Structural Material

We appreciate the Department's proposed change to the universal approval for the use of slag as "granular structural material." (Draft Proposed IAC 567 Chapter 108.4(17)(o)) The November 2006 Memorandum inartfully characterized these uses as "controlled granular fills." The proposed term "granular structural material" more accurately captures the use of slag for specific engineering purposes, including "strength, stability, and improved drainage." In such applications, slag is not simply used to "take up space" like "general fill material," as currently defined in Chapter 108.3.

Given the intent to remove "fill" projects from the purview of the Beneficial Use regulations, we agree that the term "fill" should not be used to describe approved slag applications. It is important to recognize that the "general fill" applications governed currently by Chapter 108.6 typically involve large-scale use of bulk filler material for the primary purpose of building up the elevation of land or otherwise taking up space. In contrast, EAF slag is used in a variety of construction and industrial applications to provide a strong support base and enable adequate drainage.

We request the Department to clarify that the examples given under this entry – "e.g., unpaved parking and storage areas, pipe and tank backfill, berm construction, and other industrial and construction activity" – are not exclusive to other uses. We recommend adding other specific uses that frequently involve the use of slag, such as in the construction of roadway overpasses and interchanges. Also, it should be noted that the "and" between "industrial" and "construction" (underlined in the quotation above) was omitted from the proposed draft amendment and should be restored.

III. Use Of EAF Slag As A Soil Amendment

The Department intends to eliminate all "beneficial use" approvals that involve "soil amendment" applications and, consistent with this policy, has eliminated such uses from

the list of approvals for EAF slag.[3] We understand that this action does not mean that EAF slag cannot be used as a soil amendment, but that such uses are to be regulated under any applicable requirements of the Iowa Department of Agriculture and Land Stewardship. Please clarify that this is the case.

IV. Use Of EAF Slag As Landfill Cover

The Department intends to eliminate universal approvals of beneficial uses for landfill cover (including the prior approval for EAF slag in the November 2006 memorandum), and to regulate such uses instead under the requirement that landfill operators must obtain approval for the use of "solid by-products" as alternate cover materials. We understand that EAF slag and other materials may be used as landfill cover, so long as the landfill operator demonstrates that the material meets the various criteria for landfill cover performance as specified in the draft proposed amendments. We object to the blanket elimination of the existing "universal approval" for the use of EAF slag as landfill cover material. While a landfill operator is required to demonstrate that cover material performs adequately, this does not mean that the regulations should not recognize materials, such as EAF slag, that pose no risk to human health, safety, and the environment when used as a cover material. We recommend maintaining the pre-existing universal approvals for EAF slag and other materials as landfill cover, but noting that the requirements of draft proposed Chapter 108.7(1) continue to apply.

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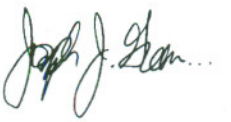
We appreciate the opportunity to provide the foregoing comments. If you have any questions, please contact me at (202) 342-8849 or JGreen@KelleyDrye.com.

Respectfully submitted,



Joseph J. Green
Counsel to Gerdau Ameristeel
and SSAB North American Division

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[3] EAF slag long has been used by the agricultural community to enhance the mineral content of soils. These uses were assessed under the risk assessment referred to above and found not to pose a risk to human health or the environment.